Airplane Manufacture Perspectives of Engine Diagnostics Technology Needs

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Engine Diagnostics & Health Management – New Airplanes

- New Airplane Programs Baseline – (Engine) Health Management Ready
  - Flexible system architecture
    - Software
    - Hardware

- Engine Health Management for Economic Benefit
  – **Still to be proven**

- Advantage - Engine OEM, physics-based engine models

- **Technology need: Adaptable/Generalized multivariate, statistics-based models with means to personalize and make deterministic**

- **Current Activities:**
  Propulsion Diagnostic Method Evaluation Strategy (ProDiMES)

Engine Diagnostics & Health Management – Legacy Fleet

- Legacy Airplane Programs Baseline – Partial, Federated (Engine) Health Management Ready Systems
  - Limited flexibility in system architecture
    Software or Hardware

- Engine Health Management for Economic Benefit
  – **Still to be proven**

- Can Alternative Means of Compliance be Achieved

- **Technology need: True wireless sensors**
  (Power, Signal Analysis, Data Transmission)

Questions?

Thank You